



Attorney Docket No.: A-68087-1/DJB/RMS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MARK CHEE et al.

Serial No.: 09/425,633

Filing Date: October 22, 1999

For: SEQUENCE DETERMINATION
OF NUCLEIC ACIDS USING
ARRAYS WITH MICROSPHERES

) Examiner: Forman, B. J.

) Group Art Unit: 1655

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DECLARATION PURSUANT TO 37 C.F.R. §1.132

Commissioner of Patents and Trademarks
Washington DC 20231

Sir:

I, John Stuelpnagel, do hereby declare as follows:

1. I received my B.S. in biochemistry and a D.V.M. from University of California at Davis and a MBA from the Anderson School at UCLA. A copy of my most recent Curriculum Vitae is attached as Attachment A, and forms a part hereof.

2. I am currently the Vice President of Business Development at Illumina, Inc. I have worked at Illumina since its inception, during which time I have managed the business development for the

BeadArray™ detection technology. I have been intimately involved in the process of marketing the single nucleotide polymorphism (SNP) genotyping services, and with setting the specifications for the product. A copy of an advertisement of Illumina's SNP Genotyping services and technology is attached as Attachment B.

3. I am a co-inventor on the pending patent application U.S.S.N. 09/425,633. I have reviewed and I am familiar with: the specification and the claims of pending application U.S.S.N. 09/425,633; the Advisory Action mailed August 29, 2001; and of Nikiforov et al. (U.S. Patent No. 5,679,524 filed August 9, 1996); Walt et al. (U.S Patent No.6,023,540, filed March 14, 1997); and Lyamichev et al. (Nature Biotechnology, March 1999, 17: 292-296), the prior art currently cited against this application.

4. Illumina's SNP Genotyping services have been and are currently being sold to GlaxoSmithKline; John Hopkins Medical University, Institute of Genetic Medicine; Boston University Medical Center ; University of California, San Diego; Oxagen and other undisclosed customers.

5. The current system for genotyping at Illumina utilizes labeled probes that are part of a hybridization complex with a capture probe on a surface. Specifically, ligation and extension assays are currently run. Thus, Illumina specifically utilizes the methods outlined in the claims.

6. Illumina's SNP Genotyping services are commercially successful. After marketing began in June 2001, Illumina has secured nine genotyping contracts from pharmaceutical and biotech companies and major academic institutions. The genotyping capacity has substantially increased to over one million genotypes per day. The service agreements provide Illumina with substantial revenue and there has been a substantial growth in service agreements, and this growth is fully expected to

increase in 2002. Copies of news releases pertaining to the commercial agreements are attached as Attachment C.

7. The commercial success of the Illumina technology is directly related to the BeadArray™ nucleic acid detection system using microspheres and the multiplexed assay formats developed at Illumina. In my opinion, the high throughput, cost-effectiveness, accuracy and flexibility of this system, as embodied in the claims, are directly responsible for its commercial success.

8. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that the making of willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 4/30/02

John Stuelpnagel

John Stuelpnagel
Vice President, Business Development